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Bitcoin Exits Mt. Gox and Heads to Wall Street

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No one can easily dismiss the significance of the spectacular bankruptcy of Tokyo-based Mt. Gox, once the world's largest Bitcoin exchange and a company that helped build the virtual currency. Yet Mt. Gox's half-billion-dollar loss had a remarkably small effect on the global Bitcoin economy. The collapse, for instance, did not seem to shake the Bitcoin faithful. I think Bitcoin is interesting because it forces people to rethink what money is and how value moves around the world, declares Barry Silbert, CEO of New York-based SecondMarket, which is planning to launch a Bitcoin exchange. In its current iteration as digital currency and as a global transaction network, it has the potential to radically transform our financial system.

In many ways, the evolution of Bitcoin continues. For example, Internet retailer Overstock.com reported that after accepting Bitcoin as payment in early January, it had clocked \$1 million in sales via the currency by early March; Overstock projected that annual sales could rise to \$15 million or more. The number of registered digital wallets at Blockchain.info rose from 1,297,394 on February 25, when Mt. Gox shut down, to 1,370,473 two weeks later, growing at the same rate as before the bankruptcy. Blockchain, based in Skelton, England, publishes online Bitcoin transactions on a real-time basis. Meanwhile, Bitcoin is moving into automated teller machines. Robocoin, a Las Vegas company that operates a network tied to some of the largest Bitcoin exchanges, has placed 14 Bitcoin ATMs around the world, 12 in March alone.

But the real action in Bitcoin may be taking place in New York. Entrepreneurs ranging from venture capitalists like Marc Andreessen to CEOs like Silbert and high-profile investors like Cameron and Tyler Winklevoss are beginning to envision a new generation of Bitcoin businesses that engage the U.S. regulatory system. They share a perspective that involves linking the Bitcoin community with Wall Street and investors; plugging Bitcoin into the financial system. And they describe a new era of regulation, particularly for Bitcoin as a global payment system, moving away from Bitcoin as a store of value and ultimate currency. Like so much about Bitcoin, their ideas are future-oriented and dizzily optimistic, though they also bring a realism to this emerging virtual currency that it hasn't always had. But is Bitcoin still Bitcoin once it's left the Wild West?

The promise of Bitcoin seemed tenuous on February 28, at a packed press conference at Tokyo District Court, where Mt. Gox's 28-year-old, French-born CEO, Mark Karpel's, revealed that 748,408 customer coins and an additional 100,000 owned by the exchange had disappeared as a result of fraudulent activity by unknown parties, made possible by a weakness in the system. The alleged theft represented 7 percent of the 12.4 million coins then in circulation and a loss of \$479 million at \$565 per Bitcoin, the value on that date. Mt. Gox suffered from a \$27 million shortfall, bringing the total loss to \$506 million.

The Mt. Gox disaster triggered a firestorm of reaction and comment. Bitcoin was already controversial. But Mt. Gox stirred up demands from regulators, politicians and policymakers that the Bitcoin community needed to go to far greater lengths to demonstrate it could protect digital financial assets; provide secure, reliable and legal transactions; expand capital reserves; create strong financial institutions; and be capable of withstanding attacks.

Today, as Bitcoin moves beyond Mt. Gox, the tempest has receded. The failure of Mt. Gox is certainly a significant event relative to Bitcoin, says Edmund Moy, a former director of the U.S. Mint who was tasked by the Treasury Department with monitoring the development of the currency from 2009 to 2011. (Moy is currently chief strategist with Morgan Gold, which provides a vehicle for 401[k] and IRA participants to invest in physical gold.) But it's not fatal, because the problem was with Mt. Gox and not Bitcoin.

What went wrong? Moy says, A quirk in Bitcoin's programming allowed for what is known as transactional malleability. This is a technical way of saying a very clever theft. The flaw first appeared in June 2011, when Mt. Gox was hacked and 25,000 or more coins were transferred from individual accounts. Given Bitcoin's \$15 price at the time, this represented at least \$375,000. The flaw allowed the criminal to alter a transaction's term before it was completed, first creating a delay, then allowing the hacker to change the name of the recipient, according to Moy.

Mt. Gox detected the fraudulent duplicate transactions and reimbursed customers whose coins had been stolen. In response to the security flaw at Mt. Gox, other Bitcoin-related companies attacked the problem and worked around it to secure sites. Mt. Gox also tried to address the flaw, but it's hard work to change your own software, says Moy, and the exchange apparently did not do enough to improve security on individual accounts.

In February hackers probably devised a way around the various security patches, Moy says. Once the vulnerability was discovered, hackers stormed and overwhelmed the Mt. Gox system.

But in January, even before the attack, Mt. Gox had slowed the rate at which it allowed withdrawals, says Benjamin Isgur, a Bitcoin trader based in the Washington area who blogs on digital currencies at TheBlogChain. Isgur reported the slowdown on January 24. Until they [Mt. Gox] suddenly become transparent and provide any reasonable explanation and solution for their current withdrawal issues, Mt. Gox is Mt. Vesuvius, he wrote a month before the exchange failed. According to an unnamed source in a report in Japanese newspaper Yomiuri Shimbun, a massive distribution denial-of-service assault on the trading platform hit on February 7, just as the thefts began, and continued until February 10, crippling systems. Most of the attacks came from the U.S. and Europe, the report said. Mt. Gox suspended withdrawals on February 10.

#147;There are two ways to look at this #151; strategically and tactically,#148; says Steven Lord, editor of Modern Money Letter, which reports on alternative currencies.Strategically, the benefits of Bitcoin remain. #147;Tactically, this has raised the specter of Bitcoin being some huge Wild West that#146;s completely unregulated,#148; he says.The failure, he explains, raises important questions that bear on regulation #151; anathema to some in the Bitcoin community. #147;Whose job is it to make sure no one is stealing currency?#148; asks Lord. #147;The effort to answer that question is now going to become extremely accelerated.#148; Two weeks after Mt. Gox failed, Japan indicated that it plans to regulate Bitcoin as a commodity and tax Bitcoin purchases and profits.

Bitcoin companies may need to take matters into their own hands and create a self-regulatory regime, says Bart Chilton, a commissioner at the U.S. Commodity Futures Trading Commission. #147;The best way to ensure Bitcoin#146;s future is to come up with some voluntary regulations, at a bare minimum,#148; he says. #147;Based on whether or not those are sufficient, it will become clear the extent to which regulators will become involved.#148; Bitcoin companies have collaborated to enhance security and have launched an industry organization called the Bitcoin Foundation.

Self-regulation may clash with Bitcoin#146;s decentralized nature, which is rooted in a libertarian and free-market ethos.Austrian School economist Friedrich Hayek supported the idea that state-owned currencies should compete with private currencies.Remarkably, the federal government has taken a hands-off approach, at least so far.In a November 18, 2013, letter to the U.S. Senate Committee on Homeland Security and Governmental Affairs, then#150;Federal Reserve chairman Ben Bernanke wrote that although digital currencies could be used for money laundering and raised oversight issues, #147;there are also areas where [digital currencies] may hold long-term promise.#148; That sentence is credited with sending Bitcoin prices soaring from \$575 to \$775.

Bernanke also noted that the Fed lacks the authority to regulate a virtual currency unless #147;it is issued by, or cleared or settled through, a banking organization we supervise.#148; Bernanke#146;s stance was recently reiterated by his successor, new Fed chair Janet Yellen.In congressional testimony shortly after Mt. Gox, Yellen indicated that the Fed intends to steer clear of Bitcoin and that she thought Treasury should be the regulator.

#147;I understand people involved in Bitcoin don#146;t want the government breathing down their neck,#148; says Chilton. #147;At the same time, governments will get involved if they see potential problems.#148;

Just over a year ago, Bitcoin got something of a green light in the U.S. when the Financial Crimes Enforcement Network (FinCEN), part of Treasury, issued guidance that administrators and exchanges of virtual currencies would have to register with the agency as money services businesses and adhere to related reporting and recordkeeping regulations, just like foreign exchange dealers.Far from threatening Bitcoin, that decision was a catalyst. #147;I would call that ruling a watershed moment,#148; says Gil Luria, chief analyst for financial technology at Wedbush Securities in Los Angeles. #147;Before that ruling there was a notion that Bitcoin was so ambitious and so revolutionary that the government would necessarily want to squash it.#148;

Luria says Treasury may have been motivated by the realization that trying to kill Bitcoin would only drive it overseas, where it would thrive using online access to foreign outlets. #147;What is much preferable to the government is to have third-party entities like Coinbase, BitPay and others emerge that they can regulate,#148; Luria explains.

So far, three U.S.-based exchange companies have registered with FinCEN as money services businesses, says Braden Perry, a partner in the Prairie Village, Kansas, law firm of Kennyhertz Perry and a former CFTC litigator: San Francisco#146;s Kraken; Palo Alto, California#146;s Buttercoin; and New York#146;s Coinsetter. Perry calls the FinCEN decision #147;a huge boost for the Bitcoin ecosystem, especially in the U.S., where exchanges were not able to form banking relationships.#148;

Now they can, if they can persuade banks to accept the risks of providing services to Bitcoin traders. However, Perry points out, there is also a downside: state regulation. New York State Superintendent of Financial Services Benjamin Lawsky held hearings on Bitcoin in late January. On March 12 he called for proposals to recommend how the state should regulate virtual-currency exchanges. He said New York wants exchanges to be well capitalized, provide strong cybersecurity protections and conduct background checks on managers.

Not surprisingly, some in Congress have also grown concerned about Bitcoin, though no legislation has resulted. The lead player: Delaware Democratic Senator Tom Carper, chairman of the Homeland Security and Governmental Affairs Committee. In November, Carper held hearings on money laundering, drug trafficking and other criminal activity revealed by an FBI raid on underground online market Silk Road last October. With the failure of Mt. Gox, Carper#146;s interests shifted to consumer protection. #147;Regulatory agencies must remain vigilant in their monitoring of this emerging payment system,#148; says the senator.

The frequent comparison of Bitcoin to the Wild West #151; a comparison highlighted by the Mt. Gox debacle #151; points to a central concern. Bitcoin exchanges, which ought to be pillars of strength and trust, are instead the most vulnerable part of the Bitcoin economy. It#146;s not just a regulatory problem. #147;What we#146;ve got in the Bitcoin space right now are exchanges that mostly function more like retail brokerages, you might say, from the institutional perspective,#148; says Peter Vessenes, CEO of Seattle-based Bitcoin incubator CoinLab and chairman of the Bitcoin Foundation. #147;There aren#146;t any real institutional-style liquidity providers out there right now,#148; he adds. #147;Most of the liquidity on exchanges is in the dollar market, while other currencies lag far behind, including the euro. I think we#146;ll probably see stronger euro liquidity this year. But liquidity is so thin right now that people would rather trade dollar for coin.#148;

Wall Street analysts are unimpressed with the oldest Bitcoin exchanges, many of them in developing nations with little regulation. The remedy: more-robust exchanges. #147;We#146;re in a stage of passing the torch in terms of exchanges,#148; says Wedbush#146;s Luria. #147;The exchanges we had in the past were ill equipped to deal with volumes and stresses of a more developed market. Gox is a perfect illustration: It was entirely ill equipped to handle stresses of modern trading and the kind of nefarious people who try to hack financial institutions.#148;

Luria predicts that over the next few months more-mature exchanges will emerge, funded by venture capital and operating in the developed world under sophisticated regulatory regimes.

Meanwhile, existing exchanges have moved to fill the vacuum. The volume leader is Bitstamp, which last year was moved from Slovenia to Reading, England, by its CEO, Nejc Kodric. The second largest is BTC-e, which is based in Bulgaria, although its terms of use adhere to Cypriot law. The founders of BTC-e use only their Russian names,

Aleksey and Alexander.Russia, whose law forbids surrogate currencies, is investigating the exchange. Then there's BTC China, based in Shanghai. Once the largest exchange, BTC China saw its volume fall after the country clamped down on Bitcoin, but in recent months it has rebounded. BTC China's Stanford University-educated CEO is Bobby Lee, whose brother Charlie Lee invented Litecoin, a digital rival to Bitcoin. In early December, China's central bank and a number of governmental bodies declared Bitcoin to be a virtual commodity and not a currency and prohibited banks and payment systems from providing Bitcoin-related services. China and Brazil are the only nations with specific Bitcoin regulations, according to a Law Library of Congress report issued in January.

For Bitcoin to move into its next phase of development, it will need the acceptance of institutional investors and Wall Street, which can provide investment flows and more-sophisticated market discipline. The CEOs of two New York-based Bitcoin companies, Jaron Lukasiewicz at Coinsetter and SecondMarket's Silbert, believe they can make that happen. This will be the year when the seeds are placed so institutional Wall Street can really connect to Bitcoin, Lukasiewicz says. For now, however, regulatory challenges have not been resolved. The majority of people in the Bitcoin space are retail and not trading on a U.S. exchange. That's a problem we are solving;

Lukasiewicz views major overseas exchanges as poorly built; Coinsetter has constructed an electronic communication network that matches buy and sell orders. It routes trades to Bitstamp for liquidity and expects to add overseas exchanges. Coinsetter is also building its own financial information exchange (FIX) application programming interface (API), a standard used by banks, prime brokerages and hedge funds. That FIX API will potentially turn us technologically into a plug-and-play option for Wall Street platforms, Lukasiewicz says. The regulatory challenge is that registered broker-dealers and licensed traders in the U.S. cannot work with unlicensed brokerages; it's crucial for Bitcoin exchanges to obtain the necessary licensing.

Even though Coinsetter has registered as a money services business, the company needs to be licensed by a federal regulator to avoid licensing requirements by various states. Right now there is no meaningful way to obtain a license, so that's why you haven't seen any U.S. Bitcoin exchanges emerge yet, Lukasiewicz says.

Coinsetter is talking with brokerages about providing liquidity and exploring possible partnerships. But no one knows which agency would approve a license: the Securities and Exchange Commission, the CFTC or one of the federal banking overseers. Still, Lukasiewicz optimistically adds, There's a good chance we'll be the only licensed exchange in the United States in the next few months.

CoinLab's Vessenes believes Bitcoin needs more than just well-funded, secure and licensed exchanges. Bitcoin also has to boost so-called market capitalization to attract venture funding and institutional investors. With 12.5 million coins in circulation, the digital currency had a market cap on March 11, at \$624 per coin, of \$7.8 billion. So far, Bitcoin mining; solving complex algorithmic problems with specialized computers in exchange for new Bitcoins; has attracted the most venture funding because it's the most lucrative. Wedbush estimates \$86 million in venture capital had been invested in Bitcoin by mid-February, plus some \$200 million in mining equipment.

Despite Mt. Gox, the ardor of early venture enthusiasts remains undimmed. For example, Andreessen, a partner in

Silicon Valley venture firm Andreessen Horowitz, has invested in Bitcoins #151; and lost coins at Mt. Gox. #147;This is like MF Global, not some huge breakdown of the underlying technology or other exchanges,#148; he told [CNBC](#) in early March. #147;Bitcoin protocol is unchanged, and other exchanges and companies are doing fine.#148;

And there#146;s Fred Wilson, a partner at New York#150;based Union Square Ventures, who has invested in Coinbase and wrote on his blog on February 25 that he #147;bought a little Bitcoin today#148; after Mt. Gox shut down. #147;I always feel good buying when there is blood in the streets in any market.#148;

Another Bitcoin venture investor is Jim Breyer, a partner at Accel Partners, which has invested in Boston-based payment platform Circle Internet Financial. Google Ventures has put cash into companies such as OpenCoin, the company behind distributed currency exchange Ripple, and more recently Buttercoin, a trading platform hoping to become an exchange.

[Centralway](#), based in Zurich, has also invested in Buttercoin. #147;We are convinced that in the future alternative currencies will play as important a role as traditional currencies,#148; says Severin Jan R#252;egger, managing partner for Centralway#146;s regulated investment fund. #147;Buttercoin will take Bitcoin exchanges to the next level through strong partnerships with key local partners, ensuring full compliance and strict adherence to all local regulation. After all, why shouldn#146;t buying Bitcoin be as easy and secure as buying dollars or stocks?#148;

In September, SecondMarket launched Bitcoin Investment Trust, which has \$50 million in assets. The fund is open to institutions and high-net-worth individuals. SecondMarket is spinning off its digital-#173;currency business into an unnamed company that will also operate an exchange, which [SecondMarket](#) says will be capitalized with \$20 million in cash and Bitcoin assets.

Unlike existing exchanges, the proposed SecondMarket operation will operate a hub-and-spoke arrangement like those of the New York Stock Exchange and the [London Stock Exchange](#), CEO Silbert says. The exchange is the hub, and broker-dealer members are the spokes. #147;Direct access to the exchange is not provided except through one of the members,#148; he says. The exchange will have central clearing. Silbert also plans a self-regulatory organization to provide governance and monitor exchange activities. And Silbert has been chasing the necessary regulatory approvals.

Silbert expects the New York State Department of Financial Services to soon identify who needs a BitLicense, as well as a process for obtaining one. #147;I think they recognize there#146;s a pretty good opportunity for New York to emerge as a Bitcoin-friendly, if not a leading, state for Bitcoin entrepreneurs to set up businesses,#148; he says.

One of the most ambitious efforts to mainstream Bitcoin comes from the now-famous Winklevoss twins. The pair gained notoriety for suing [Facebook](#) over claims that social media network founder Mark Zuckerberg stole the concept for the service from them. The pair received a settlement and invested in Bitcoin when it was still in single digits #151; probably a little more than \$1 million. At recent prices their roughly 1 percent of coins outstanding is worth more than \$70 million.

In an interview with [Institutional Investor](#), Tyler Winklevoss argues for Bitcoin#146;s future role as a commodity #151; that is, as a form of payment. #147;I don#146;t think it#146;s a currency,#148; he says. #147;It#146;s a

commodity, much like commodity money. It's an asset that can transact around the world instantly and for free. That notion informs the twins' plan to launch a company selling Bitcoin exchange-traded funds. In July they filed a registration statement for the [Winklevoss Bitcoin Trust](#). An amendment in February added information on daily pricing of the proposed ETF index, dubbed Winkdex, on a net asset value basis.

A Bitcoin ETF is another effort to plug the Bitcoin community into the engines of Wall Street. Kathleen Moriarty, a partner at [Katten Muchin Rosenman](#) who represents the twins, notes that there hasn't been much, if any, interface among the Bitcoin community, Wall Street and investors. Cameron and Tyler feel very strongly there should be reasonable regulation, she says. That was part of why they filed the registration statement, because no regulator except for FinCEN was talking about Bitcoin. The CFTC wasn't. The SEC wasn't. Nobody was at the time.

Tyler Winklevoss explains: Our thinking behind the ETF was basically to answer the question that we get asked all the time by friends and families: How do I buy Bitcoin? And the answer really isn't that easy to give. A lot of people want to buy Bitcoin, but they don't have the time or the technical savvy to buy it and securely store it. And so, in an effort to reduce those pain points and friction, we looked for a solution, and the one we came up with is an ETF mechanism, which gives you the same exposure to the Bitcoin asset class without having to procure it and secure it yourself.

Moriarty says the twins considered a private fund resembling the one SecondMarket launched last fall but ruled it out because, she says, you don't need to really engage the regulators if you just do a private fund. Instead, they're proposing a public fund not limited to high-net-worth individuals.

How big is the Bitcoin market? The Winklevoss twins peg it at \$400 billion. SecondMarket's Silbert sees it at 5 percent of investments in gold, about \$350 billion. Wedbush's Luria says Bitcoin will take a bite of the \$1.9 trillion financial gold market and both global foreign currency reserves (a \$7.5 trillion market) and safe-haven currencies (\$4.3 trillion). To the extent that Bitcoin captures a slice of the combined \$13.7 trillion from these three markets, it could drive up the price ten to 100 times, Luria says.

The downside? What Luria calls a meaningful probability that competing digital currencies could undermine Bitcoin. That's only likely if a better crypto-currency emerges, which he doesn't see yet.

Others are more skeptical. Steven Englander, head of Group of Ten currency strategy at Citigroup forex unit CitiFX, questions the basic premise that Bitcoin has unique value, because the total number of Bitcoins is capped at 21 million. I have ignored Bitcoin as a store of value, he wrote in a January 3 note. If investors and miners are able to arbitrage among Bitcoin and more than 50 clones, the outcome will be that there are many perfect or near-perfect substitutes for Bitcoin and the effective supply will be much larger. That would make Bitcoin valuations fragile.

Englander does not entirely rule out a currency role for Bitcoin. Investors and central banks are looking for improved stores of value beyond fiat currencies, and Bitcoin possibly may be one of them, he wrote. If Bitcoin operated within the financial system and authorities embraced it, he thinks it would have a better chance of winning

the virtual-currency sweepstakes.

Englander believes Bitcoin has a long lead on potential rivals. Like other close observers, including the Winklevoss twins, he sees Bitcoin's fundamental benefit as its ability to provide secure payments. If Bitcoin has flaws in its commercial application that the Bitcoin community does not repair for philosophical reasons, competition will emerge, he warns. In any event, the Bitcoin story is just beginning.

---- INDEX REFERENCES ----

COMPANY: CENTRALWAY HOLDING LTD; BLACKHAWK TECHNICAL COLLEGE DISTRICT WISCONSIN; GOOGLE VENTURES; ACCEL PARTNERS AND CO INC; OVERSTOCK COM INC; CITIGROUP INC; bitcoin invt Tr; ANDREESSEN HOROWITZ I A LP; UNION SQUARE VENTURES 2008 LP; WEDBUSH SECURITIES INC; MF GLOBAL HOLDINGS LTD; FACEBOOK INC; BTC China; SILK ROAD ENERGY INC; WINKLEVOSS BITCOIN TRUST

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